ATLAS NORTHERN ANTHRACITE FIELD, PART 3, ONE SHEET NO. XXX. 1

COLUMNAR SECTIONS OF THE COAL MEASURES IN THE VICINITY OF HYDE PARK AND PROVIDENCE, LACKAWANNA COUNTY.

CONSTRUCTED FROM MEASUREMENTS OBTAINED FROM THE COMPANIES NAMED IN THE INDIVIDUAL TITLES, AND FROM THOSE MADE BY THE GEOLOGICAL SURVEY.

Scale 40 feet to 1 Inch

No. 1.
Mine Sheet No. XIII.
SLOAN COLLIERY
ROCK SLOPE
FROM SURFACE TO BIG BED.
D. L. & W. R. R. Co.

68.6' Cribbing
1.8' Slate
15.2' Hard Sandstone
1.1'
4.1' Slaty Sandstone
COAL.
31.0' Black Slate with Iron Balls
3.6' Soft Slate
55.5' Hard coarse Sandstone
10.1'
9.2' Black Slate
DIAMOND BED.
10.0' Hard Slate
8.1' Shale
7.0'
ROCK BED.
21.6' Hard Slate and slaty Sandstone
19.1' Slate
18.6' Sandstone

No. 2.
Mine Sheet No. XIII.
SLOAN COLLIERY.
AIR SHAFT FROM CLARK BED.
D. L. & W. R. R. Co.

9.4' Hard Sandstone
1.1' Slate.
12.1'
BIG BED.
6'
3.0' Slate
COAL.
10.6' Slate.
5.4'
NEW COUNTY BED.
63.9' Hard Sandstone
12.1' Hard sandy Slate
8.1'
CLARK BED.
10.7'
Total COAL BEDS 16.5'
Total Thickness 108.7'

No. 3.
Mine Sheet No. XIII.
HAMPTON COLLIERY.
SHAFT
FROM SURFACE TO ROCK BED.
D. L. & W. R. R. Co.

70.0' Cribbing
12.4' Slate.
1.4' COAL BED. Slate. COAL.
17.4' Fire clark Sandstone
DIAMOND BED.
3.7' Slate.
7.5' COAL & Bone. COAL.
ROCK BED. 1.8
5.1'
Total COAL BEDS 15.3'
Total Thickness 162.3'
11.1' Hard sandy Slate
8.1'
COAL BED.
4.10' Fire Clay.
COAL BED.
8.1'
CLARK BED.
34.1' Hard Sandstone
COAL
23.8' Slate
2.8' Sandstone
8.11' Slate
COAL
7.2' Soft Sandstone
2.8' Sand Shell
COAL.
8.11' Sandstone
21.6' Shelly Slate
5.9.4' Hard blue Slate
8.11' Hard blue Sandstone
32.5' Coarse blue Sandstone
172.0 Conglomerate
Continued above

No. 4.
Mine Sheet No. XIII
HYDE PARK COLLIERY.
SHAFT
FROM SURFACE TO BIG BED.
D. L. & W. R. R. Co.

20.0' Cribbing
23.0' Rock
3.6'
6.0' Slate.
COAL BED.
1.2'
5.0' Slate.
2.3' Ironstone Slate
25.0' Hard rock
2.7' 6 Slate
2.8' Rock
4.0' Soft rock
6.0'
1.0'
DIAMOND BED.
Slate
1.9' COAL BED. Slate. COAL.
1.0' COAL BED. Slate. COAL.
ROCK BED.
22.1' Slate
2.9' Soft rock
17.4' Hard rock.
10.7'
BIG BED.
Total COAL BEDS 31.1'
Total Thickness 291.7'
No. 14 Continued
67.3' Red Shale
Course Shelly Sandstone.
Blue Sandstone
Red Shale
139.0' Blue Sandstone. (WATER)
1.50' Slate rock.
89.5' Blue Sandstone
162.5' White Sandstone
Total COAL BEDS 21.6'
Total Thickness 1414.1'

No. 5.
Mine Sheet No. XIII & XV.
CAPOUSE COLLIERY
SHAFT
FROM SURFACE TO CLARK BED.
L. I. & S. Co.

27.0' Masonry.
90.9' Rock & Slate
COAL
12.2' Rock & Slate
DIAMOND BED.
21.0' Rock & Slate
ROCK BED.
86.2' Rock & Slate
12.1'
BIG BED.
5.0' Slate
COAL.
14.10 Rock & Slate
7.7'
NEW COUNTY BED
11.9' Rock & Slate
COAL
28.9' Rock & Slate
8.1'
CLARK BED
Total COAL BEDS 47.6'
Total Thickness 354.11

No. 6.
Mine Sheet No. XIII & XV.
DIAMOND COLLIERY.
AIR SHAFT
FROM SURFACE TO BIG BED.
D. L. & W. R. R. Co.

20.5' Cribbing
8.8' Soft Sandstone
COAL
19.
47.4' Sandstone
3.7' Slate
COAL
9.8' Slate.
RICHMOND OR OLYPHANT No. 2 BED.
15.10 Slate
COAL
27.2' Slate.
COAL BED.
33.
45.6' Slate and slaty Sandstone.
6' Limestone
51.9' Slate and slaty Sandstone
DIAMOND BED
7.0' Slate.
7.0' Sandstone
2.7' Slate
COAL
1.6' ROCK BED.
COAL BED.
24.1' Slate and slaty Sandstone
16.7' Sandstone
4.10' Slate
BIG BED.
Total COAL BEDS 45.9'
Total Thickness 349.5'

No. 7.
Mine Sheet No. XIII & XV.
DIAMOND COLLIERY
No. 2 SHAFT & HOIST HOLE
FROM SURFACE TO DUNMORE No. 2 BED.
D. L. & W. R. R. Co.

15.6' Fire Clay with nodules of Iron Stone
17.0' Rock.
4.0' Slate
CHURCH SLOPE BED
9.0' Slate
77.0' Rock
DIAMOND BED.
15.0' Slate
19.6' Rock.
ROCK BED.
11.0' Slate
2.6'
COAL.
8.0' Slate
COAL.
NEW COUNTY BED.
2.9.1' Rock
5.4' Slate
2.10 Rock
30.11' Slate
CLARK BED
26.2' Rock
54.7' Slate
DUNMORE No. 1 BED.
29.10 Rock.
DUNMORE No. 2 BED.
4.7' Slate
10.3' Rock
Total COAL BEDS 67.1'
Total Thickness 513.2'

No. 8.
Mine Sheet No. XIII & XV.
BRISBIN COLLIERY
SHAFT
FROM SURFACE TO CLARK BED.
D. L. & W. R. R. Co.

No. 16.
Mine Sheet No. XIII.
BRIDGE COLLIERY.
AIR SHAFT.
FROM SURFACE TO CLARK BED.
Bridge Coal Co. (Lim.)

17.6' Sandstone
1.0' Slate
DIAMOND BED
15.0' Slate Sandstone
3.0' Slate
ROCK BED
2.3' Soft Slate.
1.3' Fire Clay and Red Shale
No. 15.
Mine Sheet No. XIII & XV.
BRIDGE COLLIERY.
ROCK SLOPE.
FROM SURFACE TO BIG BED.
Bridge Coal Co. (Lim.)
49.0' Masonry
27.6' Sandstone
25.0' Slate
10.0'
DIAMOND BED
7.5' Hard Slate
13.0' Sandstone
8.0' Slate
8.0'
ROCK BED
53.6' Slate
17.0'
BIG BED
Total COAL BEDS 31.9
Total Thickness 201.5'
4.9' Shaly Sandstone
12.1'
BIG BED.
7.8' Slate.
21.6' Hard Sandstone
4.0' Slate
2.6' COAL BED. Slate. COAL BED.
13.6' Slate and Sandstone
NEW COUNTY BED.
57.0' Shaly Sandstone
5.6'
CLARK BED
Total COAL BEDS 44.0'
Total Thickness 232.9'

No. 9.
Mine Sheet No. XV.
VON STORCH COLLIERY.
ROCK SLOPE
FROM SURFACE TO BIG BED.
D. & H. C. Co.

6.6' Timbered
15.5' Soft slaty Sandstone
23.0' Shale
1.7' Iron balls
7.3' Fire Clay
DIAMOND BED
8.9'
1.7'
2.8'
4.0'
6.6' Fire Clay
ROCK BED.
3.0'
1.10' Fire Clay
42.7' Black Slaty Sandstone
Total COAL BEDS 26.4'
Total Thickness 145.7'

No. 10.
Mine Sheet No. XV.
VON STORCH COLLIERY
SHAFT.
FROM SURFACE TO CLARK BED.
D. & H. C. Co.

24.0' Masonry
29.9' Soft sandy Slate
BRISBIN OR OLYPHANT No. 1 BED.
12.5' Soft sandy Slate
17.4' Sandstone
COAL.
7.2' Sandy Slate
16.4' Sandstone
12.9' Slate
RICHMOND OR OLYPHANT No. 2 BED.
18.11' Slate
COAL
9.11' Soft Slate
5.8' Slate
COAL BED
6.5' Slate
COAL
15.8' Sandstone and slaty Sandstone
16.4' Sandstone
15.0' Slate
DIAMOND BED.
7.4' Slate
4.8' Hard Slate
1.7' COAL
33.7' Laminated Sandstone
ROCK BED
18.10' Slate and slaty Sandstone
2.0' Soft Slate.
17.0' Slate
BIG BED
3.10' Soft Slate
22.8' Sandstone.
COAL
52.1' Sandstone
1.0' Slate
5.7' COAL
Slate and slaty Sandstone
11.11' Sandstone
No. 18.
Mine Sheet No. XIII & XV.
MOUNT PLEASANT COLLIERY.
ROCK SLOPE.
FROM SURFACE TO BIG BED.
W. T. Smith.
26.0' Hard Slate and slaty Sandstone
CLARK BED
Total COAL BEDS 38.11'
Total Thickness 122'
No. 17.
Mine Sheet No. XIII & XV.
MOUNT PLEASANT COLLIERY.
SHAFT.
FROM SURFACE TO CLARK BED.
W. T. Smith.
24.6' Cribbing
COAL
14.3' Slate
2.0' Sandstone
24.6' Slate
61.6' Sandstone
2.7' Sandy Slate
3.2' Fire Clay
DIAMOND BED.
1.6' Slate
DIAMOND BED
2.3.6' Rock, Slate & Shirt
ROCK BED
1.0' Fire Clay
3.9' Iron Slate & Fire Clay
BIG BED
2.0' Fire Clay
38.5' Fine Sandstone.
COAL BED
2.1' Fire Clay
4.0' Fire Clay
17.6' Sandstone
COAL & Bony
7.0' Fire Clay & Slate
15.0' Gritty Slate
2.6' Soft black Slate
21.0' Slate
CLARK BED
Total COAL BEDS 45.8'
Total Thickness 373.2'

No. 19.
Mine Sheet No. XIII & XV.
TRIPP COLLIERY
MAIN SHAFT.
FROM SURFACE TO CLARK BED.
D. L. & W. R. R. Co.

9.2' Slate.
COAL BED.
11.11' Slate.
2.3' Sandstone
7.10 Slate
6.6' Sandstone.
9.5' Slate
27.4' Hard Sandstone
1.6' Sandy Slate
38.7' Hard Sandstone.
2.7' Sandy Slate
3.2' Fire Clay
DIAMOND BED.
26.5' Hard sandy Slate
1.1' Soft Slate
ROCK BED.
18.4' Hard Slate
5.3' Sandstone.
3.9' Iron Slate & Fire Clay
BIG BED
2.0' Fire Clay
38.5' Fine Sandstone.
COAL BED
2.1' Fire Clay
4.0' Fire Clay
17.6' Sandstone
COAL & Bony
7.0' Fire Clay & Slate
15.0' Gritty Slate
2.6' Soft black Slate
21.0' Slate
CLARK BED
Total COAL BEDS 39.6'
Total Thickness 286.8'

No. 20.
Mine Sheet No. XIII & X
TRIPP COLLIERY
SHAFT (2ND OPENING)
FROM SURFACE TO CLARK BED.
D. L. & W. R. R. Co.

61.10 Cribbing
4.4' Sandstone
5.6' Slate
7.10' Sandstone
1.11' Slate
COAL.
7.1' Slate
COAL BED.
3.10' Slate
COAL BED.
6.1' Slate
ROCK BED.
39.3' Hard sandy Slate
4.10' Slate
BIG BED.
36.0' Hard Sandstone
10' Slate
COAL BED.
5.10' Slate
COAL
6.3' Hard Slate
15.10' Sandstone.
3' Bone.
6.7' Slate
9' Slate & Bone
6.0' Hard Slate
30.7' Sandstone
3.2' Slate
CLARK BED
Total COAL BEDS 38.8'
Total Thickness 311.6'

No. 11.
Mine Sheet No. XV.
CAYUGA COLLIERY
SHAFT.
FROM SURFACE TO BIG BED.
D. L. & W. R. R. Co.

Cribbing
Rock.
State.
RICHMOND OR OLYPHANT No. 2 BED.
Rock & Slate.
COAL.
Rock & Slate.
DIAMOND BED.
Slate & Bone
Rock
COAL BED.
Rock.
COAL BED.
Rock & Slate.
COAL BED.
Slate
COAL BED.
BIG BED.
Total COAL BEDS 33.1'
Total Thickness 247.8'

No. 12.
Mine Sheet No. XV.
CLARK TUNNEL.
FROM SURFACE TO BIG BED.
D. L. & W. R. R. Co.

44.6' Soft Sandstone.
8.6' Hard Sandstone
1.10' Slate
COAL BED.
5.1' Fire Clay
25.0' Sandstone
16.5' Slate.
9.0' Fire Clay
DIAMOND BED.
6.7' Slate
10.6' Sandstone
3.3' Slate
ROCK BED.
7.4' Slate.
21.10' Slaty Sandstone
COAL
9.2' Dark Sandstone
29.5' Sandstone.
3.8' Slate
BIG BED.
Total COAL BEDS 33.1'
Total Thickness 247.8'

No. 13.
Mine Sheet No. XV.
LEGGETT'S CREEK COLLIERY
SHAFT.
FROM SURFACE TO BIG BED.
D. & H. C. Co.

9.0' Masonry
33.0' Hard rock
28.5' Slate rock
3.1'
8.7' Slate
RICHMOND OR OLYPHANT No. 2 BED.
13.0' Hard rock
1.10' Slate
COAL
20.8' Slate rock
12.0' Hard rock.
21.9' Slate rock.
4.0'
COAL BED.
4.2.11' Slate rock.
8.3'
6
DIAMOND BED.
2.0' Fire Clay
COAL.
23.6' Hard rock
5.3' Slate rock
12.1' Hard rock.
5.9' Slate rock
ROCK BED
3.9'
1.4'
1.8'
COAL.
Fire Clay
11.2'
FOURTEEN FOOT OR BIG BED.
Total COAL BEDS 33.3'
Total Thickness 334.11'

No. 22.
Mine Sheet No. XIII & XV.
RICHMOND COLLIERY.
SHAFT
FROM SURFACE TO CHURCH SLOPE BED
Finn & Van Horgeen
24.0' Cribbing
23.0' Hard Sandstone.
1.6' Soft Slate
2.6' Rock & Slate
11.0' Slate & Sandstone
2.5' Slate & Coal
3.0' Rock & Slate
OLYPHANT No. 2 BED.
2.4' Soft shaly Sandstone.
15.10 Hard sandy Slate
12.6' Sandstone
3.0' Slate
COAL.
3.10' Sandy Slate
CHURCH SLOPE BED
2.5' Fire Clay
2.2' Sandy Slate
Total COAL BEDS 11.9'
Total Thickness 119.9'

No. 21.
Mine Sheet No. XIII & XV
CHURCH COLLIERY.
ROCK SLOPE.
FROM SURFACE TO DIAMOND BED.
Church Coal Co. (Lim.)
2.6' Slate Sandstone
16.8' Sandstone
1.10' Rock Slate
COAL
Fire Clay
4.0' Sandstone
4.7' Dark Slate
CHURCH SLOPE BED
4.3' Sandy Slate
DIAMOND BED
Total COAL BEDS 11.1'
Total Thickness 96.3'

NOTES.

1. The strata composing the columnar sections have been named locally and only of name does not necessarily indicate a similarity in character of strata and vice versa.
2. Sections Nos. 1, 2, 6, 7, 9, 12, 15, 16, 18, 19, 20, 21 and 22 were measured by the Geological Survey and as to them Note No. 1 does not apply.
3. Sections Nos. 3, 4, 5 and 14 were constructed from the records of the Delaware and Hudson Canal Company, Sections Nos. 8 and 13 Delaware, Lackawanna and Western Railroad Company, Sections Nos. 10 and 17 from those of the Delaware and Hudson Canal Company and Section No. 11 from those of W. T. Smith.
4. The thicknesses as expressed in the individual strata are their true thicknesses perpendicular to the bedding. The thicknesses of the coal beds are shown as cut in the bore holes, shaft or tunnel which the section represents and do not necessarily show the thickness of the bed where worked at other points.
5. The thickness of the coal beds shown in these sections does not represent the thickness of the bed where worked but includes the refuse material of the bed.
6. Sections Nos. 1 and 2 are published as Sections No. 2 and 3 on Columnar Section sheet No. II, to show the geological connection between the sections on sheets Nos. I and XI.

SKELETON MAP
OF PART OF
MINE SHEETS XIII AND XV
SHOWING THE
POSITION OF COLUMNAR SECTIONS
ON SHEET XI.
Scale 1 mile to 1 inch.

REFERENCE SURVEY MAPS AND SECTIONS
NORTHERN COAL FIELD { MINE SHEETS Nos. XIII AND XV.
CROSS SECTION SHEETS.

Scale of Coal Measure Sections, 40 feet to 1 Inch

AUGUST 1888

ROBERT A. QUIN,
WILLIAM GRIFFITH, ASSISTANT GEOLOGIST GEORGE W. MILNES, } ASSISTANTS
WILBUR F. SMITH.

THIS BOOK MAY BE KEPT
FOUR WEEKS

COLUMNAR SECTIONS OF THE COAL MEASURES

IN THE VICINITY OF SCRANTON, DUNMORE AND THROOP, LACKAWANNA COUNTY.

CONSTRUCTED FROM MEASUREMENTS OBTAINED FROM THE COMPANIES NAMED IN THE INDIVIDUAL TITLES, AND FROM THOSE MADE BY THE GEOLOGICAL SURVEY.

Scale 40 feet to 1 inch.

No.1. Mine Sheets No. XIII & XV. PINE BROOK COLLIERY. SHAFT. FROM SURFACE TO DUNMORE No.3 BED. *L.L. & S. Co.*

No.2. Mine Sheets No. XIII & XV. BORE HOLE AT FOOT OF PLANE. PINE BROOK COLLIERY. FROM CLARK BED TO DUNMORE No.2 BED. *L.L. & S. Co.*

No.3. Mine Sheets No. XIII & XV. FAIRLAWN COLLIERY. ROCK SLOPE. FROM SURFACE TO DUNMORE No.3 BED. *Fairlawn Coal Co. Limited.*

No.4. Mine Sheet No. XV. GREEN RIDGE COLLIERY. ROCK SLOPE. FROM SURFACE TO DUNMORE No.3 BED. *O.S. Johnson*

No.5. Mine Sheet No. XV. GREEN RIDGE COLLIERY. BORE HOLE. FROM CLARK BED TO DUNMORE No.2 BED. *O.S. Johnson*

No.6. Mine Sheet No. XV. MANVILLE COLLIERY. SHAFT. 2nd OPENING. FROM SURFACE TO DUNMORE No.4 BED. *D.&H. Co. and D.L.&W.R.R. Co.*

No.7. Mine Sheet No. XV. JACKSON COLLIERY. SHAFT (2nd OPENING). FROM SURFACE TO CLARK BED. *D.&H. Co.*

No.8. Mine Sheet No. XV. MARVINE COLLIERY. SHAFT AND BORE HOLE. FROM SURFACE TO DUNMORE No.3 BED. *D.&H. Co.*

No.9. Mine Sheets Nos. XIV & XV. ROLLING MILL TUNNEL. BORE HOLE. FROM DUNMORE No.2 BED TO DUNMORE No.3 BED. *L.H. & S. Co.*

No.10. Mine Sheets No. XIII & XV. BORE HOLE. NEAR PETERSBURG NEAR PENNA. COAL CO'S LINE. FROM SURFACE THROUGH DUNMORE No.3 BED. *L.L. & S. Co.*

No.11. Mine Sheet No. XVI. No.2 SHAFT. FROM SURFACE TO DUNMORE No.1 BED. *Penn'a Coal Co.*

No.12. Mine Sheet No. XV. No.5 SHAFT. FROM SURFACE TO DUNMORE No.3 BED. *Penn'a Coal Co.*

No.13. Mine Sheet No. XV. BORE HOLE. NEAR No.5 SHAFT. FROM SURFACE THROUGH DUNMORE No.3 BED. *Penn'a Coal Co.*

No.14. Mine Sheet No. XVI. SPENCER COLLIERY. SHAFT. FROM SURFACE TO DUNMORE No.3 BED. *A.D.E.M. Spencer.*

No.15. Mine Sheet No. XVI. No.4 SHAFT. FROM SURFACE TO DUNMORE No.3 BED. *Penn'a Coal Co.*

No.16. Mine Sheet No. XVI. No.3 SHAFT. FROM SURFACE TO DUNMORE No.3 BED. *Penn'a Coal Co.*

No.17. Mine Sheet No. XVI. No.1 SHAFT BORE HOLE. FROM SURFACE TO DUNMORE No.3 BED. *Penn'a Coal Co.*

No.18. Mine Sheet No. XVI. DIAMOND DRILL BORE. 870 FEET N.W. OF No.1 SHAFT. FROM SURFACE TO CONGLOMERATE. *Penn'a Coal Co.*

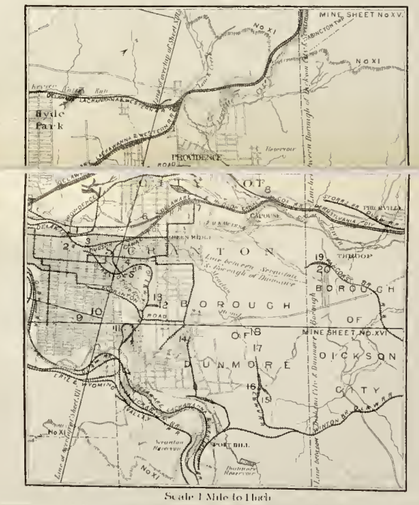
No.19. Mine Sheet No. XV. PANCOAST COLLIERY. SHAFT. FROM SURFACE TO TOP MEMBER OF BIG BED. *Pancoast Coal Co.*

No.20. Mine Sheet No. XV. PANCOAST COLLIERY. AIR SHAFT AND BORE HOLE. FROM SURFACE THROUGH DUNMORE No.1 BED. *Pancoast Coal Co.*

NOTES.

1. The strata composing some of these sections have been named correspondingly or similarly of same class and nomenclature in the character of the strata and vice versa.
2. Sections Nos. 1, 3, 4, 6, 7, 11, 12, 14, 15, 16, 19 and 20 were made Geological Survey and to them Note No. 1 does not apply.
3. Sections Nos. 2, 5, 9 and 10 were constructed from the recor Lackawanna Iron and Steel Company. Section No. 8 from the Delaware and Hudson Canal Company, and Sections Nos. 13, 1 from those of the Pennsylvania Coal Company.
4. The thicknesses assigned to the individual strata are their true perpendicular to the bedding. The thicknesses of the coal beds as rod in the bore hole, shaft or tunnel which the section represents necessarily show the average thicknesses of the beds where work points.
5. The thickness of the coal beds shown in these sections does not thickness of the coal obtained, but includes the refuse material of the
6. Section No. 5 is published on Section No. 15 on Columnar Sec No. IX, but is reproduced on this sheet to show the geological between Sheets Nos. IX and XII.

SKELETON MAP OF MINE SHEET XV AND PART OF XIII, XIV AND XVI SHOWING THE POSITION OF COLUMNAR SECTIONS ON SHEET XII.



Scale 1 Mile to 1 Inch

REFERENCE SURVEY MAPS AND SECTIONS NORTHERN COAL FIELD: MINE SHEETS Nos XI, XIII AND XIV. CROSS SECTION SHEETS.

Scale of Coal Measures 40 Feet to 1 Inch

1887.

WILLIAM GRIFFITH, ASSISTANT GEOLOGIST | ROBERT A. QUIN, GEORGE W. MILNES, WILBER F. SMITH | ASSISTANTS

AUGUST 1888.

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GEOLOGICAL SURVEY OF PENNSYLVANIA. J. P. LESLEY, STATE GEOLOGIST

ANTHRACITE DISTRICT. FRANK A. HILL, GEOLOGIST IN CHARGE

WYOMING BASIN, SCRANTON DISTRICT, LACKAWANNA COUNTY.

NORTHERN COAL FIELD MINE SHEET, No. XV

SECTION OF COAL MEASURES
PROVIDENCE SHEET
VON STORCH SHAFT
AND
MARVINE SHAFT BORE HOLE
DELAWARE & HUDSON CANAL CO.

VON STORCH SHAFT

- Richmond or Olyphant No 2 Bed
- Coal Bed
- Diamond Bed
- Rock Bed
- Big or Fourteen Foot Bed
- Clark Bed

MARVINE SHAFT BORE HOLE

- Dunmore No 1 Bed
- Dunmore No 2 Bed
- Dunmore No 3 Bed

Red Ash Beds

Scale 100'=1"

Deborah Mc Lean

ABINGTON TOWNSHIP

Elizabeth Mc Lean

NOTES

1. The North and South Meridian and East and West Parallel lines are drawn 2000 feet apart
2. All material printed in Vermilion relates to the Big or Fourteen Foot bed with the exception of the outcrop of the top of the Marsh Chunk Red Shale No 3d.
3. With the exception of mine workings in the Church Slope bed all Providence rock slopes and tunnels, the black print relates to the surface features.

Olyphant No 1 bed
Olyphant No 2 or Richmond bed
Church Slope bed
Diamond bed
Rock bed
Big or Fourteen Foot bed
New County bed
Clark bed
Dunmore No 1 bed
Dunmore No 2 bed
Dunmore No 3 bed

Property lines
Warrant lines
County lines
Township lines
Borough lines
Ward lines

Hoisting shafts
Coal trial shafts
Air shafts
Bore holes
Slopes in color of bed
Rock slopes in black
Tunnels
Drifts
Buildings

This map was constructed from the surveys of the
Delaware & Hudson Canal Co
Delaware Lackawanna & Western Railroad Co
Lackawanna Iron & Steel Co
Pennsylvania Coal Co.
William T. Smith
D. Sahlmann & Co.
Pancoast Coal Co.
Fairlawn Coal Co. Limited
Elk Hill Coal & Iron Co.
Bridge Coal Co. Limited
Church Coal Co. Limited
E. F. Birewell, City Engineer Scranton
E. P. Arnsden, C.E.
and
Geological Survey

Area of Workable Coal Beds
Pottsville Conglomerate No XII
Marsh Chunk Red Shale No XI

LACKAWANNA IRON & STEEL CO.

THEODORE VON STORCH

W. PARKER

DELAWARE & HUDSON CANAL CO.

Approximate outcrop of Big Bed

Approximate Outcrop of Red Ash Dunmore Bed

SECTION LINE G

Marsh Chunk Red Shale

Stone Quarry

3rd. WARD

PRICE, PANCOAST AND THROOP

Mary Mc Lean

Sandy Mc Lean

CLOVER HILL

Clover Hill Coal Co.

Approximate Outcrop of Big Bed

BOROUGH OF DICKSON CITY

Alexander Dolph

Ann Mc Lean

Isaac Vaughn

14th. WARD

21st WARD

2nd. WARD

PROVIDENCE

ALBRIGHT

S. BLAIR

PARK PLACE

Dickson Shaft

S. C. GILBERT

W. PARKER

D. H. C. GENNET

DELAWARE & HUDSON CANAL CO. LESSEE

ANTICLINAL

Marvine Shaft OWNS SURFACE

Storrs Shaft

13th. WARD

12th. WARD

11th. WARD

SANDERSON ESTATE

GREEN RIDGE

LACKAWANNA RIVER

DELAWARE & HUDSON CANAL CO.

GREEN RIDGE ANTICLINAL

1st. WARD

FAIR GROUNDS

P. CARTER

ELK HILL COAL & IRON COMPANY LESSEE

Elkhorn Bed

PENNSYLVANIA COAL COMPANY

LINE BETWEEN SCRANTON AND BOROUGH OF DUNMORE

H. A. Chambers

George Graham

Thomas Robson

Storrs Shaft

PRICE VILLE

10th. WARD

HITCHCOCK ESTATE

LACKAWANNA IRON AND STEEL CO.

DUNMORE

PETERSBURG

HENRY BELIN JUNR. ESTATE

BOROUGH OF DUNMORE

PENN COAL CO.

GEORGE SIMPSON

HYDE PARK ANTICLINAL

DELAWARE AND HUDSON CANAL CO.

DUNMORE CEMETERY

Chamberlain Shaft

THROOP

PANCOAST, PRICE & THROOP

PANCOAST COAL COMPANY, LESSEE

Road from Dunmore to Olyphant

John Pierce

William Pierce

DELAWARE AND HUDSON CANAL CO.

PENNSYLVANIA COAL CO.

Scale 800 feet to 1 Inch

Providence, Center of Market and Main Streets 13.36 miles north of Wilkes Barre Court House

Elevation	11.40	East
Latitude of Monument, Wilkes Barre Court House yard (observed)	41° 14' 40.68"	
Longitude	75° 53' 3.6"	east of Washington
Latitude of Scranton Court House (U.S. Coast and Geodetic Survey)	41° 24' 29"	
Longitude	1° 24' 13.6"	East of Washington

479.

WILLIAM GRIFFITH, Assistant Geologist

ROBERT A. QUIN
WILBUR F. SMITH
GEORGE W. MILNES, Assistants
HOWELL T. FISHER
JINZOO ADACHI

JUNE 1888.

ATLAS NORTHERN ANTHRACITE FIELD, PART 3, MINE SHEET NO. [illegible] 2.

A A

WYOMING BASIN, SCRANTON DISTRICT LACKAWANNA COUNTY

NORTHERN COAL FIELD, COLUMNAR SECTION SHEET No. IX

COLUMNAR SECTIONS OF THE COAL MEASURES

IN THE VICINITY OF

MINOOKA, SCRANTON AND DUNMORE,

LACKAWANNA COUNTY.

CONSTRUCTED FROM MEASUREMENTS OBTAINED FROM THE COMPANIES NAMED IN THE INDIVIDUAL TITLES, AND FROM THOSE MADE BY THE GEOLOGICAL SURVEY.

Scale 40 feet to 1 inch.

No. 1.
Mine Sheet No. XI
DIAMOND DRILL BORE HOLE No. 1.
AT OAK HILL MINES
FROM SURFACE TO CONGLOMERATE.
Hillside Coal & Iron Co.

58' 0" Sandstone
5' 6" 1' 0" Slate — FOURTH BED
46' 0" Sandstone
2' 0" Conglomerate
18' 0" Sandstone
5' 0" Conglomerate
1' 0" Sandstone & COAL
2' 0" 6' 0" 8' 0" Sandstone
10' 0" Sandstone — COAL
1' 6" Slate — COAL BED
4' 0" Slate — POWDER A.M.LE OR HIGH EXPLOSIVE
17' 0" Sandstone
3' 0" 8" Slate — COAL BED — 3' 8"
5' 4" Slate
15' 0" Slaty Sandstone
8' 0" Sandstone
2' 6" Conglomerate
56' 6" Sandstone

Total COAL BEDS 17' 3"
Total Thickness 294' 2"

No. 2
Mine Sheet No. XIII
GREENWOOD COLLIERY
BORE HOLE NEAR No. 6 DEPT
FROM SURFACE TO No. 6 BED.
R. G. Brooks

9' 4" Surface
14' 2" Soil & Slate
6' 6" CLARK OR FOURTH BED
54' 6" Sandstone
3' 8" 0" Slate
2' 6" Sandstone
9' 6" Pot Conglomerate
1' 2" CLARK BED
7' Black Slate — No. 4 OR DUNMORE No. 1 BED
1' 5" Fire Clay
46' 8" Sandstone
5' 6" — 1' 0" Slate — No. 5 OR DUNMORE No. 2 BED — 2' 0"
36' 6" Sandstone

Total COAL BEDS 8' 8"
Total Thickness 160' 8"

1' 0" COAL
12' 3" Slate — No. 6 OR DUNMORE No. 3 BED
5' COAL
6' 4" Slate
10' COAL
4' 3" Slate
7' 0" Pot Conglomerate

Total COAL BEDS 17' 3"
Total Thickness 253' 0"

No. 3
Mine Sheet No. XIII
GREENWOOD COLLIERY
SHAFT
FROM SURFACE TO DUNMORE No. 2 BED.
R. G. Brooks

25' 0" Masonry
NEW COUNTY BED (Concealed by Masonry)
94' 0" Sandstone
CLARK BED
63' 0" Sandstone & Slate
No. 4 OR DUNMORE No. 1 BED
30' 0" Sandstone
DUNMORE No. 2 OR SLOPE BED (BED PINCHED)

No. 4
Mine Sheet No. XIII
DIAMOND DRILL BORE HOLE No. 2
S. 31° W. 2302 FEET
FROM NATIONAL BREAKER
FROM SURFACE THROUGH No. 6 BED.
William Connell & Co.

2' 6" Surface
23' 0" Sandstone & Slaty Sandstone
2' 6" 6' 6" Sandstone and Slate — COAL — No. 1 OR BIG BED
2' 2"
15' 10" Sandstone and Slate
3' 3" Slate — COAL
1' 6" Sandstone and Slate — No. 2 OR NEW COUNTY BED
10' 1"
2' 7" Slate
11' 3" Sandstone & Slate
1' 1" COAL
1' 1" Sandstone & Quartz
15' 5" Slate & Sandstone
6' 2" — No. 3 OR CLARK BED
3' 11" Sandstone
8' 1" Slate & COAL
8' 5" Sandstone
3' 7" Conglomerate
8' 11" Sandstone
1' 10" Conglomerate
10' 7" Sandstone
2' 10" Conglomerate
2' 1" Slate
1' 0" Stony Slate
15' 8" Slate & Sandstone
2' 4" — No. 4 OR DUNMORE No. 1 BED
6' 3" Slate
1' 0" Sandstone
1' 0" Slate
1' 0" Sandstone
2' 0" Slate
29' 5" Sandstone
2' 8" Slate & Rony — No. 5 OR DUNMORE No. 2 BED — 3' 7"
13' 6" Slate
4' 10" Conglomerate
No. 6 OR DUNMORE No. 3 BED
33' 1" Sandstone

Total COAL BEDS 11' 6"
Total Thickness 302' 8"

No. 5.
Mine Sheet No. XIII
DIAMOND DRILL BORE HOLE No. 1
S. 23° W. 1920 FEET
FROM NATIONAL BREAKER
FROM SURFACE TO CONGLOMERATE
William Connell & Co.

1' 0" 2' 0" Surface
6' 0" Sandstone
4' 0" Sandstone
1' 6" Slate & Pyrites
6' 0" Slate
1' 0" Sandstone
1' 6" Sandstone
1' 6" Slate & Sandstone
1' 0" COAL — No. 1 OR BIG BED
1' 0" Sandstone
1' 0" Slate
1' 0" COAL
1' 0" Sandstone
1' 0" Slate
1' 0" COAL — No. 2 OR NEW COUNTY BED
2' 0" Slate
1' 0" COAL BED
1' 0" Slate
1' 0" COAL
14' 6" Sandstone
1' 6" Slate
1' 0" Sandstone Slate
9' 1" Hard Sandstone
1' 0" COAL BED
1' 0" Slate — No. 3 OR CLARK BED
1' 0" COAL
1' 0" Slate
8' 10" Sandstone
1' 0" Slate
1' 0" Sandstone
1' 0" Slate
No. 4 BED
1' 0" Sandstone
1' 0" Slate
4' 0" Sandstone
6" Slate
1' 0" Sandstone
10" Slate
1' 0" Sandstone
13' 4" Sandstone Slate
12' 5" Sandstone
2' 7" Conglomerate — No. 5 BED
1' 0" COAL
24' 1" Sandstone Slate
15' 6" Sandstone
1' 0" Slate
No. 6 OR DUNMORE No. 3 BED
8' 10" Slate
29' 1" Sandstone
11' 1" Sandstone & Conglomerate

Total COAL BEDS 17' 0"
Total Thickness 291' 6"

No. 6.
Mine Sheet No. XIV.
ROPE DRILL BORE HOLE
NEAR COL. SANDERS AND STONE STS., SCRANTON
FROM SURFACE THROUGH RED SHALE
William Connell & Co.

8' 0" Surface
20' 0" Pot Conglomerate
8' 0" Slate, Rone & COAL — No. 4 OR DUNMORE No. 1 BED — 2' 1"
24' 0" Sandstone
No. 5 OR DUNMORE No. 2 BED — 7' 1"
6' 0" Slate & Shale
No. 6 OR DUNMORE No. 3 BED
18' 0" Sandstone
2' 0" Shelly Rock

No. 7.
Mine Sheet No. XIV
DRILL BORE HOLE
FEET FROM NATIONAL BREAKER
FROM SURFACE TO
DUNMORE No. 2 BED
William Connell & Co.

8' 0" Surface
No. 1 OR BIG BED
23' 0" Rock
No. 2 OR NEW COUNTY BED
15' 0" Rock
No. 3 OR CLARK BED
21' 0" Rock
4' 0" Slate
6' 0" Rock
2' 0" Slate
12' 1" Rock
1' 8" 2" Rock
COAL
1' 4" Black Slate — No. 4 OR DUNMORE No. 1 BED
1' 8" Slate
5' 0" Rock
No. 5 OR DUNMORE No. 2 BED

Total COAL BEDS 15' 3"
Total Thickness 291' 6"

No. 8.
Mine Sheet No. XIII
NATIONAL COLLIERY
SHAFT
FROM SURFACE TO No. 6 BED
William Connell & Co.

1' 6" Slate & Pyrites
9' 0" Slate, Sandstone
17' 6" Hard Sandstone
COAL
No. 3 OR CLARK BED
3' 0" Slate
1' 7" COAL
3' 6" Pyrites
20' 0" Surface
11' 0" Rock
1' 6" Slate
2' 8" Slate — COAL — No. 4 OR DUNMORE No. 1 BED
31' 0" Rock
6' 4" Slate
9' 8" Rock
5' 0" Slate
No. 5 OR DUNMORE No. 2 BED
12' 0" Slate
25' 5" Hard Rock
COAL
11' 2" Rock
COAL BED — No. 6 OR DUNMORE No. 3 BED

Total COAL BEDS 14' 1"
Total Thickness 157' 2"

No. 9.
Mine Sheet No. XIII.
BORE HOLE
NEAR COR. PITTSTON AVE. AND PALM ST. SCRANTON
FROM SURFACE TO No. 6 OR DUNMORE No. 3 BED
William Connell & Co.

20' 0" Surface
11' 0" Rock
1' 6" Slate
2' 8" Slate — COAL — No. 4 OR DUNMORE No. 1 BED
31' 0" Rock
6' 4" Slate
9' 8" Rock
5' 0" Slate
No. 5 OR DUNMORE No. 2 BED
12' 0" Slate
25' 5" Hard Rock
11' 2" Rock
COAL BED — No. 6 OR DUNMORE No. 3 BED

Total COAL BEDS 14' 1"
Total Thickness 157' 2"

No. 10.
Mine Sheet No. XIII
BORE HOLE
NEAR INTERSECTION OF WASHINGTON AVE. AND ROBINSON
FROM SURFACE TO DUNMORE No. 3 BED
L. L. & S. Co.

42' 3" [illegible] Sand
17' 0" S[illegible]
49' Fine Clay
COAL with Slate
CLARK BED
Slate
36' 0" Rock
7' 0" 5' 0" 2' 0" 3' 0" 6' 0" 2' 6" [illegible]
DUNMORE No. 1 BED

Total COAL BEDS 14' 10"
Total Thickness 126' 0"

No. 11
Mine Sheet No. XIII.
MEADOW BROOK COLLIERY
SHAFT
FROM SURFACE TO No. 5 OR DUNMORE No. 2 BED
William Connell & Co.

22' 4" Drilling
10' 5" Sandstone
11' 8" — No. 3 OR CLARK BED
Hard, Light & Dark Sandstone
1' 4" Slate & Slaty Sandstone
1' 0" Sandstone
4' 0" Peat Conglomerate
9' 9" Coarse Sandstone
COAL BED
15' 6" Slate & Slaty Sandstone
4' 8" Sandstone
4' 0" — No. 4 OR DUNMORE No. 1 BED
4' 0" Slate
4' 11" Coarse Sandstone
2' 10" COAL BED
5' 0" — 2' 6" Slate & Breaker — No. 5 OR DUNMORE No. 2 BED — 5' 10"
1' 9" Slate

Total COAL BEDS 25' 8"
Total Thickness 125' 0"

No. 12
Mine Sheet No. XIII
BORE HOLE
ON THE FLATS NORTH OF MEADOW BROOK BREAKER
FROM SURFACE TO No. 5 OR DUNMORE No. 2 BED
William Connell & Co.

59' 0" Surface
9' Sandstone
5' Dirt
16' 4" Sandstone
9' Dirt
12' 1" Sandstone
8' 8" Bone & Slate — No. 5 OR DUNMORE No. 2 BED
1' 9" Slate

Total COAL BEDS 1' 8"
Total Thickness 108' 11"

No. 13.
Mine Sheet No. XIV
BORE HOLE
AT GARDNERS DEPOT
ON STAFFORD MEADOW BROOK
FROM SURFACE TO CONGLOMERATE
William Connell & Co.

16' 5" Sandstone
25' 9" Sandstone mixed with COAL
30' 1" Sandstone
24' 7" Sandstone & Slate
23' 11" Conglomerate
20' 3" Conglomerate and Sandstone
11' 3" Conglomerate

Total COAL BEDS 0' 0"
Total Thickness 161' 9"

No. 14
Mine Sheet No. XIV
DIAMOND DRILL BORE HOLE No. 1.
ON L. & Y. No. 38
FROM SURFACE TO CONGLOMERATE
Charles Du Pont Breck.

2' 7" Surface
9' 11" Sandstone
7' Slate
11' 0" Sand. Slate
8' Slate and COAL
29' 11" Black Slate
2' Sandstone
2' 4" Black Slate and COAL
2' 6" Slate & Shaly Sandstone
1' 2" Sandstone
7' 10" Slate
10' 5" Sandstone
14' 6" Conglomerate
1' 8" Sandstone
39' 1" Conglomerate
4' 5" Sandstone & Conglomerate
2' Sandstone
6' 8" Conglomerate
36' 7" Sandstone

Total COAL BEDS 11' 0"
Total Thickness 276' 0"

No. 15
Mine Sheet No. XIV
DIAMOND DRILL BORE HOLE No. 2.
ON L. & Y. No. 38.
FROM SURFACE TO CONGLOMERATE
Charles Du Pont Breck.

45' 0" Surface
7' 2" Micaceous Sandstone
5' 0" Fire Clay — No. 2 OR DUNMORE No. 2 BED
1' 2" Sandy Slate
32' 0" Sandstone
22' 7" Pot Conglomerate

Total COAL BEDS 7' 1"
Total Thickness 112' 0"

No. 16
Mine Sheet No. XIII.
ROLLING MILL SLOPE
DRIFT HOLE
FROM DUNMORE No. 2 BED TO DUNMORE No. 3 BED
L. L. & S. Co.

ROLLING MILL OR DUNMORE No. 2 BED
47' 0" Rock
DUNMORE No. 3 BED — 2' 4" Slate & Bone
10' 0" Fire Clay

Total COAL BEDS 1' 9"
Total Thickness 60' 7"

No. 17
Mine Sheets Nos. XIV & XV
ROLLING MILL TUNNEL
BORE HOLE
FROM DUNMORE No. 2 BED TO DUNMORE No. 3 BED
L. L. & S. Co.

ROLLING MILL OR DUNMORE No. 2 BED
95' 0" Rock
DUNMORE No. 3 BED — 1' 2" Stone — 7" Slate

Total COAL BEDS 2' 9"
Total Thickness 82' 4"

No. 18
Mine Sheets Nos. XIV & XV
BORE HOLE
NEAR CORNER PRESCOTT AND MULBERRY ST. SCRANTON.
FROM SURFACE THROUGH RED SHALE
L. L. & S. Co.

Continued above

No. 6 Continued

2' 9" Red Shale
1' 6" Red Shale
23' 0" Hard blue Sandstone
20' 0" Red Shale
5' 0" Red Sandstone
5' 0" Fine white Sandstone
12' 0" Red Shale
23' 0" Sandstone
Continued above

No. 8 Continued

[illegible] Fine Clay
[illegible] Coal with Slate
[illegible] Clark Bed
[illegible] Rock
[illegible] Rock
[illegible] Dunmore No. 1 Bed
[illegible] Rock
[illegible] Dunmore No. 2 Bed
[illegible] Rock
[illegible] Dunmore No. 3 Bed
[illegible] Rock

No. 13 Continued

[illegible] Fine white Sandstone
[illegible] Blue & white rock
[illegible] Blue & white Sandstone
WATER at 600'
[illegible] Fine green Sandstone
[illegible] Red Sandstone & Slate
[illegible] Blue Sandstone
[illegible] Red Shale
[illegible] Blue & slate rock
WATER at 700'
[illegible] Hard Black Slate

No. 14 Continued

21' 9" Light blue Sandstone
14' 10" Red Shale
32' 6" Hard blue Sandstone
10' 0" Soft red Shale
29' 8" Red Shale
14' 10" Hard blue Sandstone
19' 8" Hard white Sandstone
14' 10" Red Shale
17' 8" Blue Sandstone
19' 7" Hard black Sandstone
14' 11" Red Shale
9' 11" Soft black Sandstone
9' 0" Hard blue Sandstone
29' 8" Salt red Sandstone
7' 0" Hard white Sandstone
7' 2" Hard blue Sandstone
19' 8" Red Shale
WATER at 500' rose to 9' from Surface
20' 6" Hard blue Sandstone
Continued above

No. 15 Continued

8' 4" Black Sandstone
7' 11" Hard blue rock
5' 0" Red Sandstone
33' 8" Red Shale
38' 7" Blue Sandstone
8' 9" Red Shale
Total COAL BEDS 10' 0"
Total Thickness 294' 0"

NOTES.

1. The similar appearance of beds of these Sections does not necessarily indicate similarity in the character of the strata and vice versa.
2. Sections Nos. 8 and 11 were measured by the Geological Survey, and to them Note No. 1 does not apply.
3. Section No. 1 was constructed from the records of the Hillside Coal and Iron Company; Sections Nos. 2 and 3 from those of Mr. R. G. Brooks; Sections Nos. 4, 5, 6, 7, 9, 12 and 13 from those of William Connell & Company; Sections Nos. 10, 14, 15 and 16 from those of the Lackawanna Iron and Steel Company; and Sections Nos. 14 and 15 from those of Mr. Charles Du Pont Breck.
4. The thicknesses assigned to the underclay strata are their true thicknesses perpendicular to the bedding. The thicknesses of the coal beds are shown as cut in the bore hole, shaft or tunnel which the section represents, and do not necessarily show the thickness of the bed where worked at other points.
5. The thickness of the coal beds shown in Bore or Tunnel does not represent the thickness of the coal alone, but includes the refuse material of the bed.
6. Section No. 1 was published in Northern Coal Field Atlas part II, see Section No. 2a, Columnar Section Sheet No. XIII, but is reproduced here to show the geological connection between the Sections on Sheets Nos. VIII and IX.

SKELETON MAP
OF PART OF
MINE SHEETS Nos. XI, XII, XIII AND XIV
SHOWING THE
POSITION OF COLUMNAR SECTIONS
ON SHEET IX
Scale, 1 mile to 1 inch.

Scale of Coal Measure Sections 40 Feet to 1 Inch

FEET 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440 460 480 METERS

480 of 7 Sheets

AUGUST 1888

ROBERT A. QUIN, WILLIAM GRIFFITH, ASSISTANT GEOLOGIST. GEORGE WILMES, WILBUR E. SMITH, } ASSISTANTS

REFERENCE SURVEY MAPS AND SECTIONS
NORTHERN COAL FIELD { MINE SHEETS Nos. XI, XII AND XIV
CROSS SECTION SHEETS.

ATLAS OF URBAN AND REGIONAL PLANNING PART 1: COLUMBIA SECTION SHEET NO IX 5.

LIBRARY

GEOLOGICAL SURVEY OF PENNSYLVANIA. J. P. LESLEY, STATE GEOLOGIST

ANTHRACITE DISTRICT. FRANK A. HILL, GEOLOGIST IN CHARGE

WYOMING BASIN, SCRANTON DISTRICT, LACKAWANNA COUNTY.

NORTHERN COAL FIELD MINE SHEET No. XV

SECTION OF COAL MEASURES
SOUTH SCRANTON SHEET
DIAMOND DRILL BORE HOLE No 2.
WILLIAM CONNELL & CO.

No.1 or Big Bed
No.2 or New County Bed
No.3 or Clark Bed
No.4 or Dunmore No.1 Bed
No.5 or Dunmore No.2 Bed
No.6 or Dunmore No.3 Bed
Red Ash Beds

Scale 100'=1"

CITY OF SCRANTON

LACKAWANNA IRON & STEEL COMPANY

CONSUMERS POWER CO. OWNS SURFACE

R. D. LACOE AND OTHERS

REMINGTON ESTATE

F. SIMON

WILLIAM CONNELL AND CO.

LACKAWANNA TOWNSHIP

STARK ESTATE

LACKAWANNA IRON AND STEEL COMPANY

ROARING BROOK TOWNSHIP

LACKAWANNA IRON AND STEEL COMPANY

W^m DAGEN

Lot 51 certified Pittston

William Wright

John Brown

George Ellis

William Sweetland

Thomas Good

Dry Valley Run

Edwin A. Douglas

William Mc Kelby

Nathaniel Brown

Henry Hill

Mary Wright

Andrew Grace

Charles Gorin

Robert Hunter

Christ. Getting

Daniel Van Campen

Nathaniel Walter

James Caldwell

John Carey

Blackhall

Outcrop of No. 5 or Red Ash Bed

Outcrop of No. 3 or Red Ash Bed

Mauch Chunk Red Shale No. XI

Mauch Chunk Red Shale No. XII

Scranton City Line

Section Line

Between Lackawanna & Roaring Brook Townships

Line of Overlap of Map Sheet XVI

Magnetic Meridian Variation 6° 34' West

True Meridian

Lackawanna Iron and Steel Cos Railroad to Iron Mines (abandoned)

Erie and Wyoming Valley Railroad

Pennsylvania Coal Co's Railroad

Graitney's Railroad

Providence Turnpike

Meadow Brook

Roaring Brook

Notes

1. The North and South Meridians and East and West Parallel lines are about 2,000 feet apart.
2. All Material printed in red refers to the Big or No.1 bed with the exception of the outcrop
3. With the exception of rock slopes and tunnels the black print relates to the surface features

Big or No.1 Bed
New County or No.2 Bed
Clark " " 3 "
Dunmore No.1 or No.4 Bed
" " 2 " " 5 "
" " 3 " " 6 "

Property lines
Warrant lines
County lines
Township lines
Borough lines
Ward lines

Hoisting shafts
Coal trial shafts
Air shafts
Bore-holes
Slopes in color of bed
Rock slopes in black
Tunnels
Drifts
Buildings

This map was constructed from the surveys of the

Wilkes Connell & Co
Lackawanna Iron & Steel Co
H. C. Brooks

E. F. Bisbett, Pits Engineer Scranton
F. P. Ansedee, C. E.
O. D. Shepherd C. P. & E. M.
C. W. Thompson, E. M.

Geological Survey

Area of Workable Coal Beds
Pottsville Conglomerate No. XII
Mauch Chunk Red Shale No. XI

470.

WILLIAM GRIFFITH, Assistant Geologist
ROBERT AQUIN
GEORGE W. MILNES
WILMER F. SMITH
Assistants

JULIUS BIEN & CO. LITH

Scale 800 Feet to 1 Inch

E. B. MYERS STATE PRINTER

JUNE 1888

Center of Prospect Ave. and Locust Street 10.60 miles north of Wilkes Barre Court House

	10.66	east
Latitude of Monument, Wilkes Barre Court House yard observed		41° 14' 50"
Longitude		east of Washington 1° 10' 5"
Latitude of Scranton Court House U. S. Coast and Geodetic Survey		41° 24' 29"
Longitude	East of Washington	1° 23' 13.6"

ATLAS NORTHERN ANTHRACITE FIELD. PART 5. MINE MAPS NO. 17.

A A

3
[illegible]
[illegible]
[illegible]

GEOLOGICAL SURVEY OF PENNSYLVANIA. J.P. LESLEY, STATE GEOLOGIST.
ANTHRACITE DISTRICT. FRANK A. HILL, GEOLOGIST IN CHARGE.

COLUMNAR SECTIONS
OF THE
COAL MEASURES
IN THE VICINITY OF
TAYLORVILLE AND HYDE PARK,
LACKAWANNA COUNTY.
CONSTRUCTED FROM MEASUREMENTS
OBTAINED FROM THE
COMPANIES NAMED IN THE INDIVIDUAL TITLES,
AND FROM THOSE MADE BY THE
GEOLOGICAL SURVEY.

Scale 40 feet to 1 inch

No.1. Mine Sheet No.XI SIBLEY COLLIERY FROM SURFACE TO CLARK BED Elliot Mc Clure & Co.

No.2. Mine Sheet No.XIII PYNE COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.3. Mine Sheet No.XIII PYNE COLLIERY ROCK SLOPE FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.4. Mine Sheet No.XIII ARCHBALD COLLIERY SHAFT FROM SURFACE TO NEW COUNTY BED D.L.&W.R.R.Co.

No.5. Mine Sheet No.XIII ARCHBALD COLLIERY SLOPE & INSIDE AIR SHAFT FROM SURFACE TO NEW COUNTY BED D.L.&W.R.R.Co

No.6. Mine Sheet No.XIII BELLEVUE COLLIERY BORE HOLE FROM SURFACE TO CONGLOMERATE D.L.&W.R.R.Co.

No.7. Mine Sheet No.XIII SLOAN COLLIERY ROCK SLOPE FROM SURFACE TO BIG BED D.L.&W.R.R.Co

No.8. Mine Sheet No.XIII SLOAN COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.9. Mine Sheet No.XIII SLOAN COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.10. Mine Sheet No.XIII CONTINENTAL COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.11. Mine Sheet No.XIII CENTRAL COLLIERY SHAFT FROM SURFACE TO BIG BED D.L.&W.R.R.Co.

No.12. Mine Sheet No.XIII CENTRAL COLLIERY AIR SHAFT FROM SURFACE TO BIG BED D.L.&W.R.R.Co.

No.13. Mine Sheet No.XIII TAYLOR COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co

No.14. Mine Sheet No.XIII HOLDEN COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co

No.15. Mine Sheet No.XIII SCRANTON COLLIERY CLIFF & ROCK SLOPE FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.16. Mine Sheet No.XIII DODGE COLLIERY SHAFT FROM SURFACE TO NEW COUNTY BED D.L.&W.R.R.Co.

No.17. Mine Sheet No.XIII BELLEVUE COLLIERY ROCK SLOPE FROM SURFACE TO ROCK BED D.L.&W.R.R.Co.

No.18. Mine Sheet No.XIII OXFORD COLLIERY SHAFT FROM SURFACE TO CLARK BED D.L.&W.R.R.Co.

No.19. Mine Sheet No.XIII BORE HOLE FOR WATER SOUTH-WEST OF CONTINENTAL SHAFT FROM SURFACE TO RED SHALE D.L.&W.R.R.Co

NOTE A.
The second bed cut in the Sibley shaft is known locally as the Clark bed but seems to be identical with the New County bed of the Scranton district (See section No. 21 Columnar Section sheet No.VII)

SKELETON MAP
OF
MINE SHEET No. XIII
AND PART OF Nos XI AND XV
SHOWING THE
POSITION OF COLUMNAR SECTIONS
ON SHEET X

Scale 1 Mile to 1 Inch

NOTES.

1. The strata composing some of these sections have been named locally and consequently a similarity of name does not necessarily indicate a similarity in the character of the strata and vice versa.
2. Sections Nos. 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, and 15 were constructed from measurements made by the Geological Survey and to them Note No.1 does not apply.
3. Sections Nos. 4, 6, 9, 12, 14 to and 19 were constructed from the records of the Delaware Lackawanna and Western Railroad Company and Section No.18 from the records of the same Company and measurements made by the Geological Survey.
4. The thicknesses assigned to the individual strata are their true thicknesses perpendicular to the bedding. The thicknesses of the coal beds are shown as cut in the bore hole shaft or tunnel which the section represents and do not necessarily show the average thicknesses of the beds where worked at other points.
5. The thickness of the coal beds shown in these sections does not represent the thickness of the coal alone but includes the refuse material of the bed.
6. A part of Section No.1 was published in Northern Coal Field Atlas Red House section No.2 Columnar Section Sheet No.VII) but is reproduced here to show the geological connection between the sections on Sheets VII and X

Scale of Coal Measures

Scale of Sections 40 Feet to 1 Inch

WILLIAM GRIFFITH, ASSISTANT GEOLOGIST
ROBERT A. QUIN, GEORGE W. MILNES, WILBUR F. SMITH, ASSISTANTS.

AUGUST 1888.

REFERENCE SURVEY MAPS AND SECTIONS
SOUTHERN COAL FIELD { MINE SHEETS, Nos XI AND XIII.
{ CROSS SECTION SHEETS.

GEOLOGICAL SURVEY OF PENNSYLVANIA. J. P. LESLEY, STATE GEOLOGIST

ANTHRACITE DISTRICT. FRANK A. HILL, GEOLOGIST IN CHARGE.

NORTHERN COAL FIELD, MINE SHEET, No XVI

WYOMING BASIN, SCRANTON DISTRICT, LACKAWANNA COUNTY.

SECTION OF COAL MEASURES.
DUNMORE SHEET.
DIAMOND DRILL BORE HOLE NO. 2
PENNA. COAL CO.

Big Bed
Clark Bed
Dunmore No1 Bed
Dunmore No 2 Bed
Dunmore No 3 Bed

Scale 100' 1"

CITY OF SCRANTON
LACKAWANNA IRON AND STEEL COMPANY
CONSUMERS POWDER CO. OWNS SURFACE
DELAWARE AND HUDSON CANAL CO.
PENNSYLVANIA COAL COMPANY
DELAWARE AND HUDSON CANAL COMPANY
PENNA. COAL CO.
PANCOAST COAL CO. LESSEE
PENNA COAL CO.
William Pierce
David Lewis
George Eddy
Eddy Creek
Dr. B. H. THROOP
H. W. Drinker
WILLIAM DAGEN
James Caldwell
R. Y. MITCHELL
Andrew Bedford
LACKAWANNA IRON & STEEL COMPANY
John Carey
ROARING BROOK TOWNSHIP
Agnes Hart
GEORGE ROSS ESTATE
John Hart
PENNA. COAL CO.
Henry Branham
Mary Branham
Robert Irwin
PENNSYLVANIA COAL COMPANY
I. X. GRIER AND MRS. MARY R. DAVIS
Christian Branham
CITY
MOOSIC MOUNTAIN COAL CO. LESSEE
BOROUGH OF OLYPHANT
WINTON & DOLPH
Eleanor Harriot
Benjamin R. Morgan
DICKSON
Red Shale No XI
Rough Chunk Red Shale No XI

NOTES

1 The North and South Meridian and East and West Parallel lines are drawn 2000 feet apart
All Material printed in red relates to the Big or Grassy Island bed with the exception of the outcrop of the top of the Mauch Chunk red shale No XI
All black print relates to the surface features
All elevations on this sheet are referred to the datum of the Pennsylvania Coal Company
The D. L. & W. R. R. Co. datum which is 7.1 feet lower than

Big or Grassy Island Bed
Clark Bed
Dunmore No 1 Bed
Property lines
Warrant lines
County lines
Township lines
Borough lines
Ward lines
Hoisting shafts
Coal trial shafts
Air shafts
Bore holes
Slopes in color of bed
Rock slopes in black
Tunnels
Drifts
Buildings

This map was constructed from the surveys of the
Pennsylvania Coal Co
A. H. & J. M. Spencer
Lackawanna Iron & Steel Co
Delaware & Hudson Canal Co
Borough of Dunmore
C. W. Thompson, E. M.
Geological Survey

Areas of Workable Coal Beds
Pocahontas Conglomerate No XII
Mauch Chunk Red Shale No XI

Scale = 800 Feet to 1 Inch

Foot of No. 6 Plane, Dunmore, 11.50 miles north of Wilkes Barre Court House
Latitude of Monument, Wilkes Barre Court House yard (observed) 41° 14′ 54″.68
Longitude 12.92 east of Washington
Latitude of Scranton Court House, U. S. Coast and Geodetic Survey 41° 24′ 29″
Longitude 1° 23′ 13″.6 East of Washington

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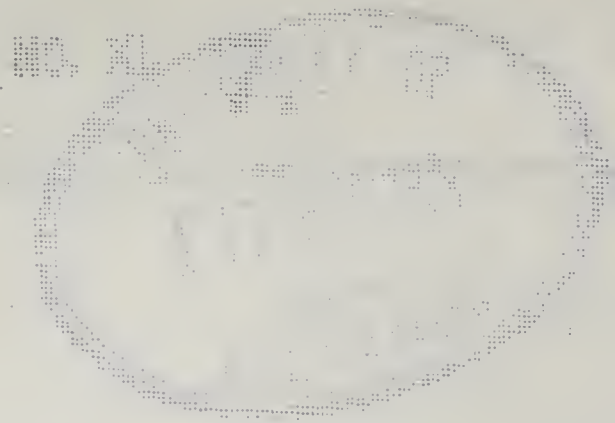
JULIUS BIEN & CO. LITH.

E. W. MILLER'S SONS, PRINTER

JUNE 1888.

ATLAS MOUNTAIN ANTHRACITE FIELD, PART 3, COLUMN SECTION SHEET NO. 3



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GEOLOGICAL SURVEY OF PENNSYLVANIA. J. P. LESLEY, STATE GEOLOGIST

ANTHRACITE DISTRICT. FRANK A. HILL, GEOLOGIST IN CHARGE

WYOMING BASIN, SCRANTON DISTRICT, LACKAWANNA COUNTY.

NORTHERN COAL FIELD MINE SHEET. No. XIII

SECTION OF COAL MEASURES, HYDE PARK SHEET.
BORE HOLE AT BELLEVUE SHAFT D. L. & W. R. R. CO.

41'0" — 5'0" Coal Bed — 30'0" — 3'0" Coal Bed — 100'0" — 8'3" — 5'0" — 6'0" Diamond Bed — 35'0" — 2'0" Rock Bed — 97'3" — 15'6" — 11'0" Big or Fourteen Foot Bed — 5'0" New County Bed — 50'0" — 6'3" Clark Bed — 33'0" — 5'0" — 25'0" — 2'0" Dunmore or Red Ash Beds — 107'0"

Scale 100—1'

NOTES

1. The North and South Meridian and East and West Parallel lines are drawn 3000 feet apart.
2. All material printed in Vermilion relates to the Big or Fourteen Foot bed with the exception of the outcrop of the top of the Mauch Chunk Red Shale No. XI.
3. With the exception of mine workings in the Church Slope bed of Providence rock slopes and tunnels, the black print relates to the surface features.

Outcrop No. 2 or Richmond bed
Church Slope bed
Diamond bed
Rock bed
Big or Fourteen Foot bed
New County bed
Clark bed
Pyne Colly. only
Dunmore No. 1 bed
Dunmore No. 2 bed

Property lines
Warrant lines
County lines
Township lines
Borough lines
Ward lines

Hoisting shafts
Coal trial shafts
Air shafts
Bore holes
Slopes in color of bed
Rock slopes as in black
Tunnels
Drifts
Building

This map was constructed from the surveys of the

Delaware Lackawanna & Western Railroad Co
William Connell & Co
Lackawanna Iron & Steel Co
Delaware & Hudson Canal Co
William T. Smith
Reese G. Brooks
Bridge Coal Co. (Lim.)
Fairlawn Coal Co. (Lim.)
Pennsylvania Coal Co.
O. S. Johnson & Co.
Church Coal Co. Lim.
Elk Hill Coal & Iron Co.
E. F. Blewett, City Engineer, Scranton
F. P. Amsden, C. E. and
Geological Survey.

RANSOM TOWNSHIP

Adam Shrack

Abraham Shrack

Charles Drake

To Harts Mountain

To Newton Centre

LINE BETWEEN RANSOM TOWNSHIP AND THE CITY OF SCRANTON

LINE OF OVERLAP OF MINE SHEET XV

Mauch Chunk Red Shale No. VI

(Bottom Member)

Red Ash Bed

outcrop of COAL

Approximate

SECTION LINE F

Area of Workable Coal Beds
Pottsville Conglomerate No. XII.
Mauch Chunk Red Shale No. XI.

The Clark bed workings at the Pyne Colliery are printed in brown to agree with the continuation of the same workings on Mine Sheet XV. This bed was here formerly considered the Upper Member of the Red Ash bed but seems to be identical with the Clark bed of the Scranton District, which is printed in Pink at every other point on this sheet. The bed formerly known as the Marcy be Clark bed seems to be identical with the New County bed.

Southeast Meridian Variation 6° 5½ West. Providence February 1888

True Meridian

BORE HOLE

NEW COUNTY BED

LACKAWANNA IRON AND STEEL COMPANY

Approximate outcrop of Red Ash Bed

Big or Fourteen Foot Bed

Clark Bed

Dunmore or Red Ash Beds

Pyne Shaft

PYNEVILLE

OLD FORGE TOWNSHIP

Thomas Dundas

Thos. Wright

The outcrop of the Big bed can not be accurately shown in the vicinity of the Pyne, Archbald and Taylor collieries, owing to the thickness of wash by which it is covered.

SIBLEY BRANCH

Archbald Shaft

Hampton Shaft

Sloan Shaft

Second Opening

OLD TUNNEL

Valley Run

Central Shaft

Hyde Park Shaft

GREEN RIDGE ANTICLINAL

HYDE PARK ANTICLINAL

Oxford Shaft

Dodge Shaft

Quarry

DODGE COLLIERY BREAKER

Bellevue Shaft

Stafford Shaft

A. NESBIT
E. P. DARLING
E. N. WILLARD
TRUSTEES

GREENWOOD BREAKER

Abram Wilmore

William Henderson

Taylor Shaft

TAYLORVILLE

James Moore

William Saulsbury

John Brown

Blackhall William Boll

R. G. BROOKS LESSEE

GREENWOOD COLLIERY

Nanticoke Shaft

Scranton Steel Mill

Meadow Brook Shafts

BREAKER

The mine workings of the Delaware, Lackawanna and Western Railroad Company within the area bounded by the Lackawanna River, the west line of the Sweatland Estate and the Keyser Valley Branch railroad have been erased from this sheet. This has been done in compliance with a request of the management of the Company made January 19th 1889.

Approximate outcrop of Big Bed

ROLLING MILL & COAL WORKINGS

DELAWARE AND HUDSON CANAL CO.

THEODORE VON STOCH

SAMUEL C. GILBERT

Diamond Shaft

Pine Brook

ALDERCUT

BLAIR

SANDERSON ESTATE

HITCHCOCK ESTATE

TRACY ESTATE

21st WARD

20th WARD

19th WARD

18th WARD

17th WARD

16th WARD

15th WARD

14th WARD

13th WARD

12th WARD

11th WARD

10th WARD

9th WARD

8th WARD

7th WARD

6th WARD

5th WARD

4th WARD

3rd WARD

2nd WARD

1st WARD

478.

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JINZOO ADACHI
HOWELL T. FISHER
Assistants

JULIUS BIEN & CO. LITH.

JUNE 1888

Scranton Court House H. 31 miles north of Wilkes Barre Court House
" " 11.16 east
Latitude of Monument Wilkes Barre Court House yard, (observed) 41° 15' 40.58"
Longitude " west of Washington 0° 05' 7.96"
Latitude of Scranton Court House (U. S. Coast and Geodetic Survey) 41° 24' 24"
Longitude " East of Washington 1° 23' 13.6"